

REMARKS

Reconsideration of the above-identified application in view of the amendments to the claims and the following remarks is respectfully requested.

Claims 1-13 are rejected. Claims 1-3 have been canceled, claims 4-13 have been amended. New dependent claim 14 was added. Claims 5 and 6 are now independent claims. Claims 5-14 are pending.

Applicants wish to thank the Examiner for pointing out informalities in the Drawings (FIGs. 4 and 7). In response, applicants respectfully request entry of the attached replacement sheets for FIGs. 4 and 7 pursuant to 37 CFR § 1.121(d) and request withdrawal of this ground of rejection.

Claims 3 and 6-7 stand objected to because of informalities. In response, applicants note that the objection to dependent claim 3 is now moot due to its cancellation. Regarding claims 6 and 7, they have been amended to correct informalities and to provide antecedent basis as discussed below. Applicants respectfully request withdrawal of the objects to the claims as amended.

In addition to the above claims amendments, dependent claim 4 was amended to provide proper dependency due to the cancellation of claim 1. Claims 5 and 6 have been amended to convert them into base claims representing at least two possible embodiments of the present such as an OLT and ONU having a HDLC packet processing unit. New base claim 5 has also been amended to recite the fact that the present invention provides a OLT comprising a HDLC packet processing unit, including a MPTS receiving section, a buffer, HDLC packet generating section which are controlled by a controlling section and the HDLC packet processing unit outputs data to a STM unit. Support for this

amendment is found on page 7, line 15 to page 8, line 4 of the specification and shown in FIG. 3. No new matter was added.

New base claim 6 has also been amended to recite the fact that the present invention provides a ONU comprising, a STM unit, a HDLC packet processing unit which includes a MPTS receiving section, a MPTS extracting section, and a buffer, which are controlled by a controlling section and the HDLC packet processing unit outputted data to a switch unit. Support for this amendment is found in the specification on page 9, line 19 to page 10, line 7 and FIG. 6. No new matter was added.

Dependent claims 7 -9 have been amended to reflect proper dependency and to provide antecedent based for the limitations claimed therein. Moreover, claim 8 and 9 have been clarified by more specifically defining the memory units as described in the specification and shown in the drawings (Page 10, line 10 to page 11, line 10 and FIG. 7). New dependent claim 14 has been added to further define how memory is allocated in the secondary memory units as described in the specification on page 11, line 3. No new matter was added.

Dependent claims 10-11 have been amended to provide antecedent based for the limitations claimed therein and to recite that the HDLC protocol provides for a HDLC packet with a predetermined size of 64 byte to 1024 byte of the ATM payload as set forth in the specification on page 8, line 2. No new matter was added.

Dependent claims 12-13 were amended to recite the fact that the present invention's transmission apparatus has a payload transmission rate of 6:512 which is providing an improvement over the prior art by reducing the overhead by approximately $\frac{1}{10}$, as explained on page 8, line 22 to page 9, line 7 of the specification.

No new matter was added.

Claim 2 stands rejected under 103(a) as being unpatentable over Pierson as applied to claim 1, and further in view of the applicant's admitted prior art ("APA") and Claim 3 stands rejected under 35 USC § 103(a) as being unpatentable over the APA as applied to claims 1-2 and further in view of Sekihata et al (US 5,237,569). As noted above claims 2 and 3 have been canceled therefore the rejections are now moot. Applicants respectfully request withdrawal of this ground of rejection.

Claims 1, 3-7 and 9-12 stand rejected under 35 USC § 102(b) as being anticipated by Pierson, Jr. (US 6,195,346 B1). In addition, claims 1-2, 4-5 and 10-11 stand rejected under 35 USC § 103(a) as being unpatentable over the APA. In response, applicants request reconsideration of both grounds of rejection of the base claim based upon the cancellation of claim 1 and the amendments to new base claims 5 and 6 as well as the following comments.

Base claim 5, as amended, now recites a transmission apparatus for use in an optical subscriber network, wherein the optical line termination (OTL) comprises; *inter alia*, **a high-level data link control (HDLC) packet processing unit disposed inside the OLT**, further including;

an multi-program transmission stream (MPTS) receiver . . .

a buffer, coupled to the MPTS receiver ...

a (HDLC) generator, coupled to the buffer . . . and

a control section.

Base claim 6, as amended, now recites a transmission apparatus for use in an optical subscriber network, wherein an optical network unit (ONU) comprising, *inter alia*,

a **high-level data link control (HDLC) packet processing unit** *disposed inside the ONU*, further including;

an multi-program transmission stream (MPTS) data receiver . . .

a MPTS data extractor *coupled to the MPTS receiver* . . .

a buffer *coupled to the MPTS data extractor* . . .and

a control section.

In contrast, Pierson discloses a bit robbing scheme to prevent the occurrence of a *frame slip event* in an ATM receiver by **moving** a HDLC receiver inside the ATM receiver (Col. 2, lines 19-51, Col. 4, line 30-42, Col. 6, line 17-19, FIG. 5A &B). According to Pierson, the placement of the HDLC receiver inside the ATM receiver has the effect of placing two T1 frame bits in the ATM cell header, thereby replacing the two least significant bits in the VCI field of the ATM header 505 (Col. 9, line 4-9, and Col. 9, line 14 – 23, see FIG. 5A &B, and 6). Accordingly, Pierson does not anticipate the present invention by providing a **HDLC packet processing unit** containing all the component section recited in claims 5 and 6, for use, for example in the OLT (claim 5) or ONU (claim 6) in a transmission apparatus – *Pierson merely moves a HDLC receiver from one place to another.*

Regarding the Office Action's obviousness rejection in view of applicant's own prior art (APA), applicants respond by noting that the amendment to claims 5 and 6 overcome any teaching or suggestions provided by the formerly presented dependent claims. In particular, new base claims 5 and 6 more clearly define the structure of a *HDLC packet processing unit* and additionally define components therein, not disclose in the background of invention section of the disclosure in the instant application.

Therefore, applicants respectfully request withdrawal of both grounds of rejection as Pierson fails to anticipate the present invention as recited in new base claims 5 and 6 and APA fails to make obvious the present invention based upon the amendments to both base claims.

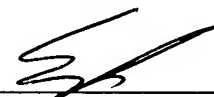
The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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Steve S. Cha, Reg. No. 44,069
Cha & Reiter, LLC
210 Route 4 East, #103
Paramus, NJ 07652
Telephone: (201) 226-9245
Facsimile: (201) 226-6246


By: Steve S. Cha
Attorney for Applicant
Registration No. 44,069